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BRIEF

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re PATENT application of:

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JAN 29 2004

TECHNOLOGY CENTER R3700

Applicants: Pierre H.G. Kobben et al.

Application No.: 10/087,613

Filing Date: March 1, 2002

Title: CUSHIONING CONVERSION MACHINE HAVING HEAVY DUTY CHARACTERISTICS

Examiner: Christopher R. Harmon

Art Unit: 3721

Attorney Docket: RANPP0310USA

APPEAL BRIEF (Revised)

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The undersigned submits this brief in triplicate for the Board's consideration of the appeal of the Examiner's decision, mailed June 4, 2003, finally rejecting claims 14-21 of the above-identified application. This brief has been revised in response to a Notification of Non-Compliance with 37 CFR 1.192(c) (Paper No. 18).

I. Real Party in Interest

The real party in interest in the present appeal is the assignee, Ranpak Corp.

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II. Related Appeals and Interferences

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Neither appellants, appellants' legal representative, nor the assignee of the present application are unaware of any appeals or interferences which will directly

affect, which will be directly affected by, or which will have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 14-21 stand finally rejected and are the subject of this appeal. A correct copy of these claims is reproduced in Appendix A.

IV. Status of Amendments

There are no outstanding amendments.

V. Background

In the process of shipping an item from one location to another, protective packaging material is often placed in the shipping container to fill any voids or to cushion the item during the shipping process. Paper in sheet form, preferably converted into a relatively low density pad-like cushioning or dunnage product, is an exemplary packaging material. This conversion may be accomplished by a cushioning conversion machine, such as that disclosed in the applied prior art reference, U.S. Patent No. 5,873,809 to Kempster et al. (referred to as "Kempster").

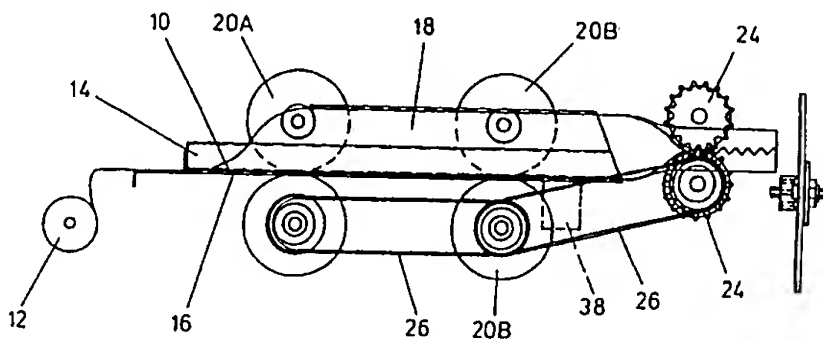
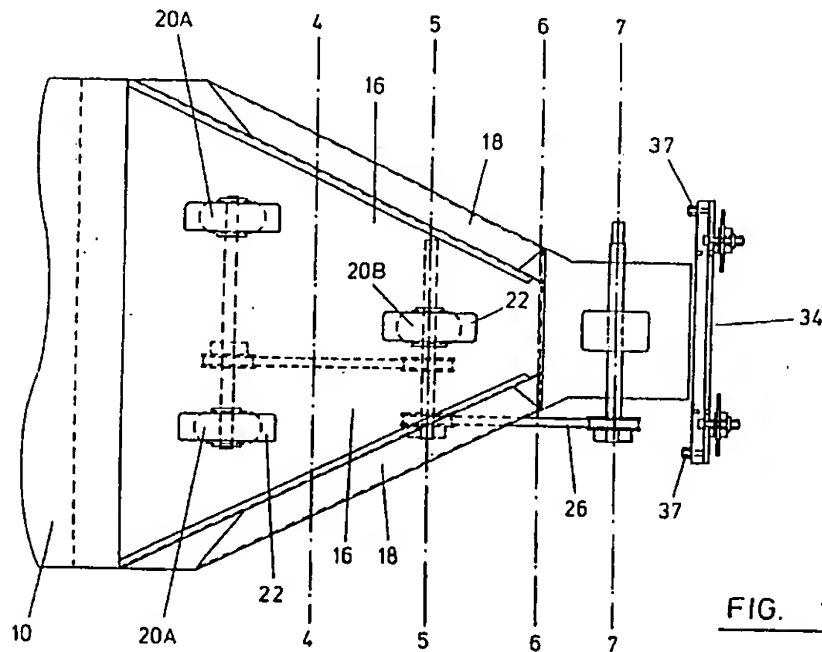
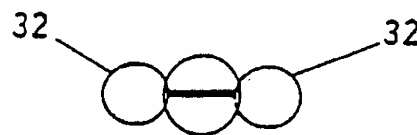


FIG. 2

Kempster discloses a packaging material making machine with a separate pulling means (including wheels 20A and 20B) arranged to pull sheet material, such as paper 10, from a roll 12 to a former 16 and a connecting means in the form of a pair of meshing gear wheels 24 located downstream of the pulling means. The gear wheels are spring biased towards each other, although no springs are shown in the drawings. The action of the gear wheels 24 deforms the surfaces of the paper 10 that pass between them to hold the dunnage together.



As the gear wheels 24 are spring loaded towards each other, they can move



apart occasionally, if required, to allow the randomly crumpled paper to be pushed through. As seen in Fig. 7, the resulting dunnage product has lateral pillow-like portions 32 and a narrow central connecting band 30 that is passed between the gear wheels to connect overlapped layers of paper therein to maintain the shape of the dunnage product. (See Kempster, col. 1, lines 4-26, and generally col. 3, line 15 through col. 4, line 5.)

VI. Summary of Invention Defined in the Claims on Appeal

The present invention improves upon the gear assembly of Kempster. In particular, the claimed invention provides at least one significant advantage over Kempster, namely the ability to quickly separate the gears to clear a jam.

The claims define a cushioning conversion machine 10 having a conversion assembly 20 that converts sheet stock material 16 into a cushioning product. The conversion assembly includes a frame 206 and a connecting assembly 36. (See generally, specification pp. 8-9.)

In the embodiment illustrated in Figs. 5, 8, and 9, reproduced below, the connecting assembly 36 includes first and second rotating feed members, in the form of a pair of cooperating and opposed gears 140 and 142. The gears 140 and 142 pull the stock material 16 through a forming assembly 32, and also connect, as by coining or stitching, for example, the formed stock material 16 along a central band to form a connected strip of cushioning. In this sense "connect" means to form the strip in such a manner that it will retain its cushioning properties as opposed to reverting to the original flat form of the stock material, thereby holding the three-dimensional crumpled or crinkled shape of the strip. (Specification, p. 14, lines 21-26.)

The gears 140 and 142 comprise a rotating driving toothed-wheel gear-like member 140 and a rotating idler toothed-wheel gear-like member 142. The driving gear-like member 140 is mounted on a driving shaft 150 which is mounted in a frame 152 supported by the housing 38 of the conversion assembly 20, specifically the frame

end plate 206. The driving shaft 150 is driven by the motor 40. (Specification, p. 14, lines 21-26.)

The rotating idler gear-like member 142 is mounted on an idler shaft 154 (Fig. 8) rotatably mounted in a carrier, which in the illustrated embodiment is a generally L-shaped pivot member 160, for movement between an operative position (Fig. 8) and an inoperative position (Fig. 9). The pivot member 160 is rotatably mounted to a support shaft 162 (see FIGS. 8 and 9). The support shaft 162 is connected at its ends to the frame 152 and thus to the frame 206. The generally L-shaped pivot member 160 may be rotated to move the rotating gear 142 toward (Fig. 8) or away (Fig. 9) from the driving gear 140 to allow paper jams, for example, to be easily resolved. (Specification, p. 14, line 27 through p. 15, line 2.)

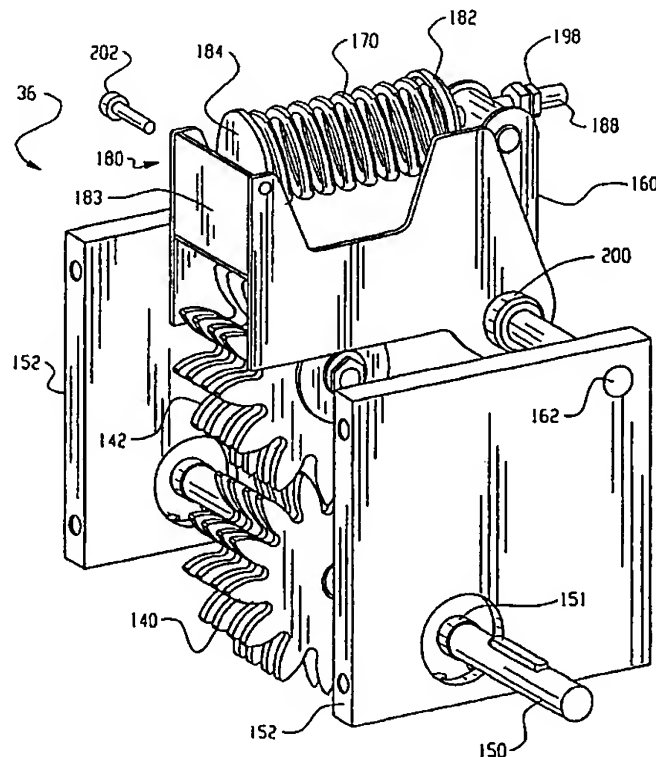


Fig. 5

The pivot member 160, and consequently the rotating gear 142, is resiliently urged towards the driving gear 140 by a biasing member, such as a spring 170, a coil spring in the illustrated embodiment, disposed between the frame 206 and the pivot member 160. The spring 170 exerts a biasing force against the pivot member 160 in the operative position, and the resilient spring biasing force substantially continuously maintains the rotating gear 142 in cooperative relationship with the driving gear 140 during a conversion process. (Specification, p. 15, lines 3-9.)

The spring 170 is carried by a mounting assembly, generally indicated by reference number 180. More particularly, the spring 170 is interposed between a bearing plate 182 and an adjustable stop 184 of the mounting assembly 180. The mounting assembly 180 is movable between a locked condition whereat the carrier or pivot member 160 may pivot about the frame over a prescribed angular range, and a

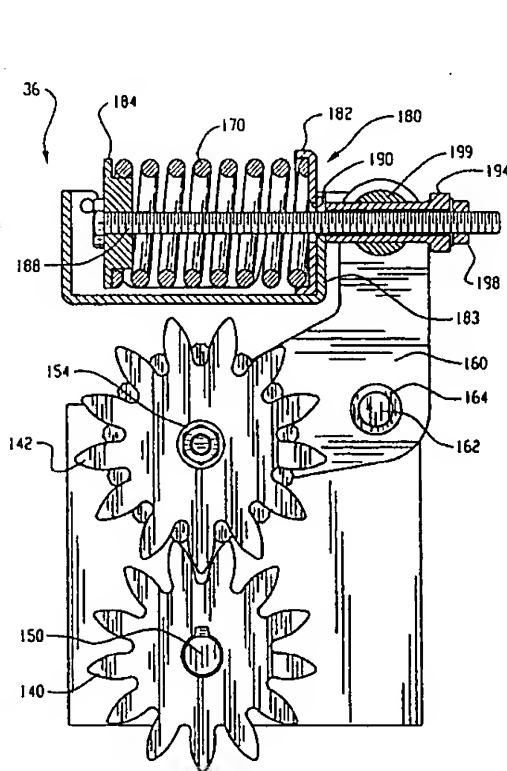


Fig. 8

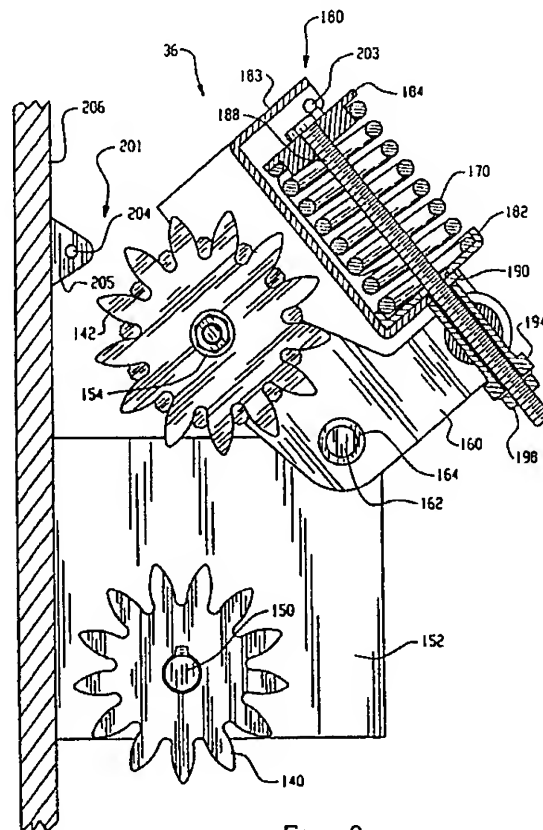


Fig. 9

released condition whereat the mounting assembly 180 is free to pivot about the frame 206, and carry the pivot member 160 with it. The bearing plate 182 is connected to a mounting bracket 183, which either limits movement in the pivot member 160 to within a prescribed range of positions or permits its free rotation. (Specification, p. 15, lines 10-17.)

The support shaft 162, which supports the pivot member 160, is mounted between side plates of the frame 152 to permit pivoting of the mounting bracket 183 about the axis of the support shaft between the operating position (Fig. 8) and a release position (Fig. 9). The mounting bracket, and thus the pivot member 160, is retained in the operating position by a releasable locking device 201. The locking device may be in the form of a quick connect/disconnect pin 202 that may be inserted through aligned openings 203 and 204 respectively provided in the mounting bracket 183 and a mounting lug 205. The mounting lug may be in the form of a clevis mounted to the machine frame end plate 206 (Figs. 2 and 9). (Specification, p. 16, lines 10-19.)

Thus, the releasable locking device 201, in a locked position, resiliently holds the pivot member 160 in its operative position thereby biasing the idler gear 142 towards the driven gear 140 to apply a pinch force to stock material being fed between the gears 140 and 142. In an unlocked position, the released locking device 201 allows the pivot member 160 to be pivoted from its operative position to its inoperative position to move the idler gear 142 away from the driven gear 140, for clearing a jam, for example. (Specification, p. 16, line 30 through p. 17, line 9.)

VII. Applied Prior Art

U.S. Patent No. 5,873,809 (referred to herein as "Kempster") and
U.S. Patent No. 3,089,695 (referred to herein as "Brooks").

VIII. Issue

Whether claims 14-21 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Kempster in view of Brooks.

IX. Grouping of Claims

Claims 14-18 and 21 stand or fall with claim 14.

Claims 19 and 20 stand or fall with claim 19.

X. Argument

It is respectfully submitted that the Examiner has failed to establish a *prima facie* case for obviousness, no motivation having been found for modifying Kempster in the proposed manner in view of Brooks. Therefore, the final rejection of claims 14-21 is improper and should be reversed for at least the following reasons.

A. First, a person of ordinary skill in the art of Kempster would not even consider Brooks

A person of ordinary skill in Kempster's art would not have considered the teachings of Brooks because Brooks relates to a different art and addresses different problems. See MPEP §2141.01 (a). Kempster relates to the art of cushioning conversion machines and the production of dunnage for packaging, whereas Brooks relates to a card folding machine.

Moreover, Brooks neither identifies a problem of Kempster nor suggests an improvement to Kempster that would lead the skilled person of Kempster's art to consider Brooks. Brooks addresses problems of card folding machines that are not applicable to Kempster's cushioning conversion machine. (See Brooks, col. 1, line 41 to col. 2, line 16.) For example, Brooks addresses problems associated with adjusting each of a series of six rollers, five of which are adjustable to adjust the pressure applied between each pair of rollers. (See Brooks, col. 1, lines 41-49.) Since Kempster only

uses one pair of gears to feed stock material, and only one gear of the pair is adjustable, adjustment would not appear to be the problem for Kempster that it is for Brooks.

In addition, there is no reason to believe that Brooks's hydraulic system would be any better than Kempster's spring biasing system since the benefits provided by the hydraulic system, such as applying a biasing force from a single source to a plurality of rollers, would not appear to be particularly beneficial to Kempster. Kempster only applies a biasing force to one gear wheel, and already uses a single mechanism to apply that force, namely the aforementioned springs. Thus, a person of ordinary skill in Kempster's art would not be motivated to even consider Brooks.

B. Second, even if the teachings of Brooks were considered alongside those of Kempster, no motivation has been found for combining their teachings.

The Examiner has taken the position that Kempster discloses all of the claim limitations except those related to how the claimed feed members are mounted, but that it would have been obvious to mount feed members in the manner taught by Brooks to arrive at the claimed invention.

Kempster et al. disclose a cushioning conversion machine comprising a frame; first and second rotating feed members 24 resiliently biased towards one another by springs; see figure 10. The lower feed member is driven and the upper is positioned upon an idler shaft. The members form a pinch force on the material fed between.

Kempster et al. do not disclose exactly how the biased members are mounted, however Brooks teach rotating feed member 1 in carriers 23 (figure 3) pivotally mounted on pivots biased by springs 68. The releasable locking device is in the form of a hydraulic cylinder 40. When the device is in its locked position the cylinder forces the cylinder towards roller 2 and when released allows for pivoting away.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to mount the rotating members as taught by

Brooks in the invention Kempster et al. in order to provide biasing towards one another.

Paper No. 12, p. 2. The Examiner's only alleged motivation for the proposed combination is that a person of ordinary skill in the art would modify Kempster in view of Brooks "in order to provide biasing [of Kempster's gear wheels] towards one another." (Paper No. 12, p. 2.)

But Kempster already discloses biasing one gear wheel toward the other. Since Kempster already discloses biasing, Brooks's teaching of biasing adds nothing to the teachings of Kempster, and thus the skilled person would not be motivated to make any changes at all to Kempster's machine. The Examiner's statement of the alleged motivation is not a reason for making the proposed combination. It is respectfully submitted that motivation for the proposed combination does not exist, and reversal of the rejection is requested.

- C. *Finally, even if the teachings of Kempster and Brooks were combined, the claimed invention could not result because neither reference teaches or suggests the claimed locking device.*

Although no springs or mounting structure is shown in Kempster's drawings, including FIG. 10 cited by the Examiner, Kempster's specification says that the gear wheels 24 are spring biased towards each other to feed a narrow central strip

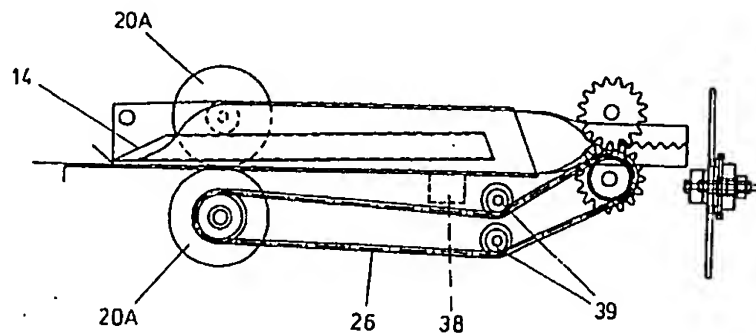
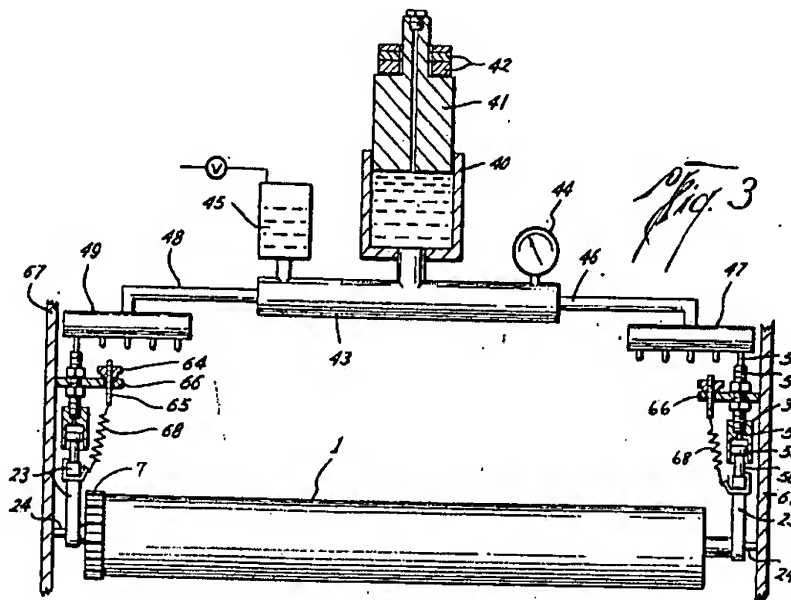


FIG. 10

therethrough. (Kempster, col. 3, lines 34-35). Presumably the springs allow the gear wheels to give to accommodate the random crumpling that occurs along the strip, while remaining sufficiently engaged to feed the strip of stock material therebetween. This allows the pad to have varying thickness.

Kempster does not disclose how the biased gear wheels are mounted, and thus does not disclose the pivotally mounted carrier set forth in claim 14. Kempster also does not teach or suggest any locking device or any desirability for a locking device.

The Examiner implicitly acknowledges Kempster's lack of a locking device in taking the position that Brooks's use of a single hydraulic system reads on the claimed releasable locking device, as noted above. Specifically, the Examiner has taken the position that Brooks's master hydraulic cylinder 40 is a locking device, apparently one that can be released by draining the hydraulic fluid from the system. See Paper No. 12, p. 2.



While it probably is possible to drain hydraulic fluid from the system, there simply is no teaching or suggestion for doing so. In fact, no teaching or suggestion has been found for disabling the hydraulic system by draining the hydraulic fluid to release

Brooks's rollers. It is respectfully submitted that the time-consuming task of draining and refilling hydraulic fluid in Brooks's system would discourage a person of ordinary skill in Kempster's art from adopting such a system without some reason for doing so. It is respectfully submitted that Brooks also fails to disclose a releasable locking device because there no teaching or suggestion for a locking device or the desirability of a locking device such as that set forth in the claims.

Moreover, even if the teachings of the applied references were combined, because both Kempster and Brooks fail to teach or suggest the locking device, one which in an unlocked position allows a carrier to be pivoted from its operative position to its inoperative position to move a first rotating feed member away from a second rotating feed member. Therefore, a person skilled in the art who combines the teachings of Kempster and Brooks could not achieve the machine defined in claim 14.

The same line of reasoning applies to claim 19. Not only has no motivation been found for the combination of the references, but even if the references were combined both references also fail to teach or suggest the additional claim limitations found in claim 19.

Specifically, no teaching or suggestion has been found in the applied references for a mounting assembly for the rotating feed member carrier, where (a) when the locking device is in its locked condition the carrier can pivot about the frame over a prescribed angular range, and (b) when the locking device is in its released condition the mounting assembly is free to pivot about the frame, carrying the carrier along with it, as set forth in claim 19.

Consider the teachings of Brooks again -- even if Brooks's hydraulic system were construed to be a "locking device" as defined in claim 14, Brooks does not appear to teach or suggest the mounting assembly of claim 19. This is because if Brooks's hydraulic system was drained, "unlocked" in the Examiner's construction, Brooks's linkage 68 would not allow free pivoting of Brooks's roller 1 because of springs 68 (see

Brooks, FIG. 3, for example). Thus, Brooks does not appear to disclose the claimed mounting assembly, and even if the teachings of the references were combined, the claimed machine would not result.

For any of these reasons, reversal of the rejection is requested.

I. Conclusion

In view of the foregoing, it is respectfully submitted that the claims are patentable over the applied art and that the final rejection should be reversed.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, L.L.P.

By: Christopher B. Jacobs
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CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper or item referred to as being attached or enclosed) is being deposited with the U.S. postal service on the date shown below with sufficient postage as first-class mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: January 20, 2004

Christopher B. Jacobs
Christopher B. Jacobs

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Appendix A
Claims on Appeal

14. A cushioning conversion machine comprising
a conversion assembly which converts sheet stock material into a three-dimensional cushioning product, the conversion assembly including a frame and a connecting assembly, the connecting assembly comprising:

first and second rotating feed members, the first of which is mounted in a carrier pivotally mounted to the frame for movement between an operative position and an inoperative position;

a biasing member disposed between the frame and the carrier for exerting a biasing force against the carrier when the carrier is in its operative position;

a releasable locking device which, in a locked position, resiliently holds the carrier in its operative position thereby to bias the first rotating feed member towards the second rotating feed member, and in an unlocked position allows the carrier to be pivoted from its operative position to its inoperative position to move the first rotating feed member away from the second rotating feed member.

15. A cushioning conversion machine as set forth in claim 14, wherein the carrier is pivotally connected to a pivot shaft and rotatably supports an idler shaft, the idler shaft carrying the first rotating feed member.

16. A cushioning conversion machine as set forth in claim 15, further including a driving shaft rotatably mounted to the frame and having the second rotating feed member carried thereon.

17. A cushioning conversion machine as set forth in claim 16, wherein the carrier, when in its operating position, is resiliently biased to urge the idler shaft and the first feed member carried thereon toward the driving shaft and the second feed member carried thereon so as to apply a pinch force to stock material being fed between the feed members.

18. A cushioning conversion machine as set forth in claim 16, wherein, when the releasable locking device is in its unlocked position, the carrier is selectively adjustable in such a manner that the idler shaft is movable towards and away from the driving shaft for adjusting the distance between the first rotating feed member and the second rotating feed member.

19. A cushioning conversion machine as set forth in claim 14, further including a mounting assembly movable between a locked condition whereat the carrier may pivot about the frame over a prescribed angular range, and a released condition whereat the mounting assembly is free to pivot about the frame and carry along with it the carrier.

20. A cushioning conversion machine as set forth in claim 19, wherein the biasing member is interposed between the carrier and mounting assembly for resiliently biasing the carrier relative to the mounting assembly so that, when the releasable locking device is in its locked position, the biasing member urges the first rotating feed member toward the second rotating feed member.

21. A cushioning conversion machine as set forth in claim 14, wherein the biasing member comprises a coil spring.



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re PATENT application of:

Applicants: Pierre H.G. Kobben et al.
Application No.: 10/087,613
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Title: CUSHIONING CONVERSION MACHINE HAVING HEAVY DUTY CHARACTERISTICS
Examiner: Christopher R. Harmon
Art Unit: 3721
Attorney Docket: RANPP0310USA

**TRANSMITTAL OF REVISED APPEAL BRIEF
IN RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF
DATED DECEMBER 18, 2003**

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Notice of Non-Compliant Appeal Brief, a revised Appeal Brief is transmitted herewith in triplicate. In the Appeal Brief, the grouping of the claims has been simplified, and the arguments have been revised accordingly.

In the event an extension of time is needed to make the filing of this paper timely, and no separate petition is attached, please consider this a petition for the necessary extension. If any fee is due in connection with the filing of this paper, the undersigned

authorizes the Commissioner to charge those fees to Deposit Account No. 18-0988
(under the above Docket No.).

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, L.L.P.

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CERTIFICATE OF MAILING

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Date: January 20, 2004

Christopher B. Jacobs
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